



[10191/1832]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant(s) : Bernd HESSING et al.  
Serial No. : 09/857,362  
Filed : October 16, 2001  
For : METHOD, RECEIVER AND TRANSMITTER FOR  
TRANSMITTING DIGITALLY CODED TRAFFIC  
INFORMATION  
Art Unit : 2616  
Examiner : Brian S. Roberts  
Confirmation No. : 3262

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**APPELLANTS' APPEAL BRIEF**  
**UNDER 37 C.F.R. § 41.37**

S I R :

Applicants filed a Notice of Appeal dated June 28, 2007 (received at the PTO on July 2, 2007), appealing from the Advisory Office Action dated April 30, 2007, in which claims 18-37 of the above-identified application were finally rejected. This Brief is submitted by Applicants in support of their appeal.

**I. REAL PARTY IN INTEREST**

The real party in interest in the present appeal is Robert Bosch GmbH of Stuttgart, Germany. Robert Bosch GmbH is the assignee of the entire right, title, and interest in the present application.

**II. RELATED APPEALS AND INTERFERENCES**

No appeal or interference which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in the pending appeal is known to exist to the undersigned attorney or is believed by the undersigned attorney to be known to exist to Applicant.

**III. STATUS OF CLAIMS**

Claims 18-37 are currently pending in the present application. Claims 18-37 stand rejected and are being appealed. Claims 1-17 were canceled in the Preliminary Amendment dated June 4, 2001. The Examiner objected to claims 36 and 37 in the 12/29/06 Final Office Action "as being of improper dependent form." Among the appealed claims, claims 18, 25 and 31 are independent; claims 19-24 and 36-37 ultimately depend on claim 18; claims 26-30 ultimately depend on claim 25; and claims 32-35 ultimately depend on claim 31.

**IV. STATUS OF AMENDMENTS**

Subsequent to the final Rejection mailed on December 29, 2006, Applicants filed a "Rule 116 Amendment" (mailed on April 12, 2007), which sought to amend claims 36 and 37 in response to the Examiner's objection to claims 36 and 37 in the 12/29/06 Final Office Action "as being of improper dependent form." Although the proposed amendments to claims 36 and 37 were clearly in compliance with the Examiner's suggestion in the Final Office Action to "amend the claims(s) to place the claim(s) in proper dependent form," the Examiner subsequently indicated in the Advisory Action mailed on April 30, 2007 that the Rule 116 Amendment will not be entered, and the Examiner did not indicate the reason for the refusal of entry of the Amendment.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

With respect to independent claim 18, the present invention provides a method of transmitting digitally coded traffic information (Fig. 1, element 410), comprising the step of:  
transmitting the digitally coded traffic information (Fig. 1, element 410) according to predetermined regulations between a transmitter and at least one receiver via at least one of a unidirectional information channel and a bidirectional information channel, (Substitute Specification, p. 11, l. 20-21; p. 12, l. 17-22);

wherein:

a subset of possible options of the predetermined regulations is defined, the options relating to at least one of a TMC message format and the ALERT-C Syntax; (p. 12, l. 3-11; p. 6, l. 9-15); and  
the digitally coded traffic information does not make use of all the options, and is always at least one of coded, transmitted, and decoded according to the subset (p. 12, l. 3-11; Abstract).

With respect to independent claim 25, the present invention provides a receiver (Fig. 6, element 300) for receiving and processing digitally coded traffic information (Fig. 1, element 410), comprising:

an arrangement (Fig. 6, evaluation circuit 320) for decoding the digitally coded traffic information according to a subset of possible options of predetermined regulations, the options relating to at least one of a TMC message format and the ALERT-C Syntax, (p. 11, l. 10-12 & 20-21; p. 12, l. 3-11; p. 6, l. 9-15),

wherein the digitally coded traffic information does not make use of all the options (p. 12, l. 3-11; Abstract).

With respect to independent claim 31, the present invention provides a transmitter (Fig. 8, element 301) for performing a conditioning and a transmitting of digitally coded traffic information, comprising:

an arrangement (Fig. 8, element 321) for coding the digitally coded traffic information according to a subset of possible options of predetermined regulations, the options relating to

at least one of a TMC message format and the ALERT-C Syntax, (p. 13, l. 1-4; p. 11, l. 10-12 & 20-21; p. 12, l. 3-11; p. 6, l. 9-15),

wherein the digitally coded traffic information does not make use of all the options (p. 12, l. 3-11; Abstract).

## **VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The following grounds of rejection are presented for review on appeal in this case:

(A) Whether pending claims 18-26, 28-32 and 34-37 are unpatentable over U.S. Patent Publication No. 2002/0194170 ("Israni") under 35 U.S.C. § 103(a).

(B) Whether pending claims 27 and 33 are unpatentable over Israni in view of U.S. Patent No. 6,070,123 ("Beyer") under 35 U.S.C. § 103(a).

## **VII. ARGUMENTS**

### **A. Rejection of Claims 18-26, 28-32 and 34-37 under 35 U.S.C. § 103(a)**

Claims 18-26, 28-32 and 34 to 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0194170 ("Israni"). Applicants respectfully submit that the rejection should be withdrawn for at least the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine the reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). The prior art must suggest combining the features in the manner contemplated by the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296; In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A.

1974). “Obviousness is a legal conclusion based on underlying facts of four general types, all of which must be considered . . . : (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) any objective indicia of nonobviousness.” ATD Corp. v. Lydall, Inc., 159 F.3d 534, 546 (Fed. Cir. 1998).

Independent claim 18 recites a method of transmitting digitally coded traffic information, in which method: a) the digitally coded traffic information is transmitted according to predetermined regulations between a transmitter and at least one receiver . . . , wherein a subset of possible options of the predetermined regulations is defined, the options relating to at least one of a TMC message format and the ALERT-C Syntax; b) the digitally coded traffic information does not make use of all the options of the predetermined regulations; and c) the digitally coded traffic information is “always at least one of coded, transmitted, and decoded according to the subset.” Independent claims 25 and 31 recite substantially similar limitations as the above-recited limitations a) and b).

In the Final Office Action, the Examiner concedes that Israni does not disclose or suggest digitally coded traffic information utilizing a subset of possible options of a TMC message format or the ALERT-C Syntax, and that Israni fails to disclose or suggest coding, transmitting and decoding the digitally coded traffic information according to the subset. However, the Examiner contends that it would have been obvious to code, transmit, and decode traffic information without the options of the TMC message format because “it is settled that it would have been obvious to a person of ordinary skill in the art at the time of the invention to omit an element if its function is not desired.” (Office Action, p. 3, citing *In re Wilson*, 153 U.S.P.Q. 740 (C.C.P.A. 1967). However, *In re Wilson* clearly does not hold that, as a matter of law, “it would have been obvious to a person of ordinary skill in the art at the time of the invention to omit an element if its function is not desired,” and there is no general proposition of law (settled or otherwise) that stipulates that “it would have been obvious to a person of ordinary skill in the art at the time of the invention to omit an element if its function is not desired,” as explained in greater detail below.

First, to the extent the Examiner cites *In re Wilson* as holding, as a matter of law, “it would have been obvious to a person of ordinary skill in the art at the time of the invention to omit an element if its function is not desired,” the explicit language of *In re Wilson* directly

and absolutely contradicts the Examiner's assertion: the CCPA clearly stated that "[w]e therefore agree with the **factually-based conclusion** of the board and the examiner that it was obvious to one of ordinary skill in the art." *In re Wilson*, 153 U.S.P.Q. at 742. In addition, to the Applicants' knowledge, there is no CCPA or CAFC opinion that cites *In re Wilson* for the proposition that, as a matter of law, "it would have been obvious to a person of ordinary skill in the art at the time of the invention to omit an element if its function is not desired." In fact, the analysis of *In re Wilson* is entirely consistent with the settled law of obviousness which directly contradicts the Examiner's assertion: "Obviousness is a legal conclusion **based on underlying facts** of four general types, **all of which must be considered** . . . : (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) any objective indicia of nonobviousness." *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 546 (Fed. Cir. 1998). Since obviousness analysis **must** involve **factual inquiry specific to each claimed invention**, there cannot be any general proposition of obviousness "to omit an element if its function is not desired," and it is simply incorrect for the Examiner to assert in the Advisory Action of 4/30/07 that "*In re Wilson* is applicable to the present case because *In re Wilson* establishes that it is obvious to one of ordinary skill in the art at the time of the invention to omit an element if its function is not desired."

*In re Wilson* merely indicates that in view of the specific facts on record before the Court, it was obvious to one of ordinary skill in the *chemical* arts to omit "water" when its function "as a foaming agent" was not desired. In particular, the Court of *In re Wilson* stated that:

With respect to claims 16 and 21, appellants contend that it was not obvious at the time of their invention to omit the use of water in the condensation reaction between the polycarbonate and diisocyanate. They point out that the water reacts with the diisocyanate to form urea groups which contribute to the stiffness of the final product whereas in the absence of water, the two reactants produce only urethane linkages which are more stable and less stiff. We note, however, that Newton employs water only as a foaming-inducing agent and that his disclosure shows that relatively small amounts of water are used. *We therefore agree with the **factually-based conclusion** of the board and the examiner that it was obvious to one of ordinary skill in this art to omit water from the Newton reaction when its function as a foaming agent was not desired. In re Wilson*, 153 USPQ at 742 (emphasis added).

Given the undeniable fact that the ruling of *In re Wilson* was based on the factual assessment by the Court as to whether one skilled in the art of chemistry would know to omit water in view of a particular use of water in a certain chemical reaction, it is simply illogical for the Examiner to state that *In re Wilson* is in any way relevant to the obviousness analysis of the present invention, which involves data communications technology.

Independent of the above, Applicants note that the Examiner's assertion of obviousness (citing *In re Wilson*) in the Final Office Action did not address the required motivation to modify the real-time traffic broadcasts of Israni to arrive at the Applicants' invention recited in claim 18. In particular, the Examiner's assertion of obviousness in the Final Office Action did not address any motivation or suggestion as to why one of ordinary skill in the art would be motivated to expend additional time and effort in terms of program design, system development and testing to deviate from the RDS-TMC standard, when in doing so one might risk introducing into the design, for example, certain unforeseen consequences and/or future compatibility issues. In order to overcome this glaring omission, the Examiner contends in the Advisory Action that the motivation for the modification would be "less bandwidth being utilized." However, since Israni clearly does not address the bandwidth issue, let alone suggest modifying the real-time traffic broadcasts as asserted by the Examiner, the Examiner's assertion is essentially that, given the ordinary skill level in the art at the time of the invention, it would have been "obvious to try" the modification to arrive at the present claimed invention. To the extent the Examiner's obviousness argument is entirely dependent on the "level of ordinary skill in the art," the Examiner's argument is clearly deficient in that the Examiner hasn't produced a shred of evidence regarding what the ordinary skill level in the art is. In any case, the "obvious to try" rationale is clearly insufficient to support an obviousness rejection, particularly when the Examiner has not established any finding as to: a) whether the problem addressed by the present invention was recognized in the art; or b) whether there was any recognized potential solution to the problem in the art.

In view of the foregoing, it is respectfully submitted that claims 18, 25 and 31, as well as their dependent claims 19-24, 26, 28-30, 32, and 34-37, are not rendered obvious by Israni. Reversal of the obviousness rejection based on Israni is respectfully requested.

**B. Rejection of claims 27 and 33 under 35 U.S.C. § 103(a)**

Claims 27 and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Israni in view of U.S. Patent No. 6,070,123 ("Beyer"). Applicants respectfully submit that the rejection should be withdrawn for at least the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine the reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). The prior art must suggest combining the features in the manner contemplated by the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296; In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). "Obviousness is a legal conclusion based on underlying facts of four general types, all of which must be considered . . . : (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) any objective indicia of nonobviousness." ATD Corp. v. Lydall, Inc., 159 F.3d 534, 546 (Fed. Cir. 1998).

Claim 27 depends on claim 25, and claim 33 depends on claim 31. As discussed above in connection with claims 25 and 31, Israni fails to teach or suggest that: a) the digitally coded traffic information is transmitted according to predetermined regulations between a transmitter and at least one receiver . . . , wherein a subset of possible options of the predetermined regulations is defined, the options relating to at least one of a TMC message format and the ALERT-C Syntax; and b) the digitally coded traffic information does not make use of all the options of the predetermined regulations. It is respectfully submitted that even if it were proper to modify the Israni reference with the teachings of Beyer as asserted by the Examiner (which is not conceded), Beyer fails to disclose or suggest the above-recited features which are also not taught or suggested by Israni. It is therefore



respectfully submitted that claims 27 and 33 are allowable over the combination of Israni and Beyer.

In view of the foregoing, reversal of the obviousness rejection of claims 27 and 33 based on the combination of Israni and Beyer is respectfully requested.

### **VIII. CONCLUSION**

For the foregoing reasons, it is respectfully submitted that the final rejections of claims 18-37 should be reversed.

Claims Appendix, Evidence Appendix and Related Proceedings Appendix sections are found in the attached pages.

Respectfully submitted,

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**APPENDIX TO APPELLANTS' APPEAL BRIEF**  
**UNDER 37 C.F.R. § 41.37**

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**CLAIMS APPENDIX**

The claims involved in this appeal, claims 18-37, in their current form (reflecting all amendments which were presented and entered during the course of prosecution) are set forth below:

18. A method of transmitting digitally coded traffic information, comprising the step of: transmitting the digitally coded traffic information according to predetermined regulations between a transmitter and at least one receiver via at least one of a unidirectional information channel and a bidirectional information channel,

wherein:

a subset of possible options of the predetermined regulations is defined, the options relating to at least one of a TMC message format and the ALERT-C Syntax; and

the digitally coded traffic information does not make use of all the options, and is always at least one of coded, transmitted, and decoded according to the subset.

19. The method according to claim 18, wherein:  
the subset provides for information options, and  
the information options provide for at least one information block.

20. The method according to claim 19, wherein:  
the information options provide for one information block.

21. The method according to claim 19, wherein:  
the information block provides for one single-information option, and  
the single-information option of the subset provides for at least one of a first extent-of-increase symbol and a second extent-of-increase symbol.

22. The method according to claim 19, wherein:  
one of the at least one information block provides for a single-event option that provides for an item of length information.

23. The method according to claim 19, wherein:  
one of the at least one information block provides for a multiple-use option that provides for one optional event.
24. The method according to claim 19, wherein:  
the subset provides for an information portion,  
the information portion provides for an item of location information, and  
the item of location information of the subset is present in the information portion in coded form according to a location table.
25. A receiver for receiving and processing digitally coded traffic information, comprising:  
an arrangement for decoding the digitally coded traffic information according to a subset of possible options of predetermined regulations, the options relating to at least one of a TMC message format and the ALERT-C Syntax,  
wherein the digitally coded traffic information does not make use of all the options.
26. The receiver according to claim 25, further comprising:  
a receiving unit for receiving a signal that includes the digitally coded traffic information.
27. The receiver according to claim 25, further comprising:  
a transmitting unit for transmitting a signal including at least one of an information inquiry and the digitally coded traffic information.
28. The receiver according to claim 25, further comprising:  
a TMC decoder by which the digitally coded traffic information can be decoded according to the subset.
29. The receiver according to claim 25, further comprising:  
a memory for storing the digitally coded traffic information.

30. The receiver according to claim 25, further comprising:  
a navigation unit that includes an arrangement for processing an information content of a traffic message.
31. A transmitter for performing a conditioning and a transmitting of digitally coded traffic information, comprising:  
an arrangement for coding the digitally coded traffic information according to a subset of possible options of predetermined regulations, the options relating to at least one of a TMC message format and the ALERT-C Syntax,  
wherein the digitally coded traffic information does not make use of all the options.
32. The transmitter according to claim 31, further comprising:  
a transmitting unit for transmitting a signal that includes the digitally coded traffic information.
33. The transmitter according to claim 31, further comprising:  
a receiving unit for receiving a signal that includes at least one of an information inquiry and the digitally coded traffic information.
34. The transmitter according to claim 31, further comprising:  
a TMC coder for coding the digitally coded traffic information according to the subset.
35. The transmitter according to claim 31, further comprising:  
a memory for storing a traffic message.
36. The method of claim 18, wherein the subset is a subset of digitally coded traffic messages message format.
37. The method of claim 18, wherein the subset is at least one of a subset of TMC reports format and a subset of the ALERT-C Syntax.

### **EVIDENCE APPENDIX**

In the present application, there has been no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132, or other evidence entered by the Examiner and relied upon by Appellants in the present appeal.

### **RELATED PROCEEDINGS APPENDIX**

No appeal or interference which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in the pending appeal is known to exist.